

Cat. No. 21-409

## **OWNER'S MANUAL**

Please read before using this equipment

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# **TRC-509**

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## **FM Walkie-Talkie**



**RadioShack®**

# FEATURES

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Your RadioShack TRC-509 FM Walkie-Talkie is a compact, portable 2-way FM radio. You can communicate with another TRC-509 or any FM transceiver operating on the same frequency (49.830 MHz). Use your walkie-talkie to add to your fun when you are at sporting events, on camping trips, biking, or hiking with your friends.

The walkie-talkie is also practical for use on the job. Use it when taking inventory in a warehouse, keeping track of your staff in a large building, or talking to your crew on a construction site. The uses for your walkie-talkie are practically unlimited.

Your walkie-talkie's special features include:

**Up to 1/4-Mile Transmission** — provides clean, noise-free reception through its double-conversion superheterodyne circuit.

**Lightweight** — weighs only five ounces, so it's easy to carry.

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**Belt Clip** — lets you clip the walkie-talkie to your belt or pocket so you can keep your hands free.

**Antenna** — provides clear reception.

**Note:** To power your TRC-509, you need one 9 volt alkaline battery (not supplied).

# PREPARATION

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## INSTALLING/REPLACING THE BATTERY

Your walkie-talkie uses one 9 volt battery (not supplied) for power. For the longest life and best performance, we recommend you use an alkaline battery such as RadioShack Cat. No. 23-553.

**Caution:** Use only a fresh battery of the required size and recommended type.

Follow these steps to install a battery.

1. Slide the battery compartment cover in the direction of the arrow to remove it.

*Fig. 1*

2. Snap the battery onto the battery connector inside the compartment. The connector only fits on the battery one way.

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### 3. Replace the cover.

When the BATTERY LOW indicator lights, replace the battery.

#### **Cautions:**

- Always remove an old or weak battery. Batteries can leak chemicals that can destroy electronic parts.
- Dispose of old batteries promptly and properly. Do not bury or burn them.

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## INSTALLING THE BELT CLIP

Your walkie-talkie comes with a belt clip. To install it, slide the clip into the slot on the back of the transceiver until it locks into place.

To remove the belt clip, lift up on the locking tab and slide the clip out.

***Fig. 2 Slot Belt Clip Locking***

# OPERATION

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## USING THE WALKIE-TALKIE

1. Pull out and fully extend the antenna for maximum range.

*Fig. 3*

2. Turn on the walkie-talkie by rotating **OFF/VOL** up until you hear a click.

*Fig. 4*

3. To transmit, press **PUSH-TO-TALK** and speak into the microphone (MIC). Or, press **CALL** to transmit a tone signal, which alerts the other person to your call.

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***Fig. 5***

4. When you finish talking, release **PUSH-TO-TALK**.
5. Adjust **OFF/VOL** for the most comfortable listening level.
6. To turn off the walkie-talkie, rotate **OFF/VOL** down until you hear a click.



# CARE AND MAINTENANCE

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Your RadioShack TRC-509 FM Walkie-Talkie is an example of superior design and craftsmanship. The following suggestions will help you care for your walkie-talkie so you can enjoy it for years.



Keep the walkie-talkie dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.



Use and store the walkie-talkie only in normal temperature environments. Temperature extremes can shorten the life of electronic devices, damage batteries, and distort or melt plastic parts.



Keep the walkie-talkie away from dust and dirt, which can cause premature wear of parts.



Handle the walkie-talkie gently and carefully. Dropping it can damage circuit boards and cases and can cause the walkie-talkie to work improperly.



Use only a fresh battery of the required size and recommended type. Batteries can leak chemicals that damage your walkie-talkie's electronic parts.



Wipe the walkie-talkie with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the walkie-talkie.

Modifying or tampering with the walkie-talkie's internal components can cause a malfunction and might invalidate your walkie-talkie's warranty and void your FCC authorization to operate it. If your walkie-talkie is not performing as it should, take it to your local RadioShack store for assistance.

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## THE FCC WANTS YOU TO KNOW

Your walkie-talkie might cause TV or radio interference even when it is operating properly. To determine whether your walkie-talkie is causing the interference, turn off your walkie-talkie. If the interference goes away, your walkie-talkie is causing it. Try to eliminate the interference by:

- Moving your walkie-talkie away from the receiver.
- Contacting your local RadioShack store for help.

If you cannot eliminate the interference, the FCC requires that you stop using your walkie-talkie.

# SPECIFICATIONS

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## General

Operation Frequency .....	49.803 MHz
Number of Channels .....	1
Input Voltage .....	9 V DC
Current Drain (Standby) .....	15 mA
(Receive) .....	100 mA max
(Transmit) .....	.40 mA max
Dimensions (HWD).....	$4\frac{3}{4} \times 2\frac{5}{8} \times 1\frac{1}{10}$ Inches (120 × 66 × 28 mm)
Weight .....	5.92 oz (167.8 g)

## Receiver

Sensitivity (20 dB S/N) .....	0.5 $\mu$ V
Squelch Sensitivity(Threshold) .....	0.5 $\mu$ V
Modulation Acceptance Bandwidth .....	$\pm 7$ kHz
Spurious and Image Rejection .....	20 dB
Frequency Stability (0°C to 40°C) .....	$\pm 2$ kHz

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## Transmitter

RF Energy Output .....	10,000 $\mu$ V/m @ 3 meters (FCC max)
Spurious and Harmonic Emissions .....	20 dB
FM Hum and Noise .....	40 dB
Audio Distortion .....	10 %
Frequency Stability (0°C to 40°C) .....	$\pm$ 2 kHz

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.

# NOTES

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## Limited Ninety-Day Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for ninety (90) days from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you. In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure (*continued*)

(continued) caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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